

Service Date: January 2, 2014

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

IN THE MATTER OF the Application of) REGULATORY DIVISION
NorthWestern Energy for Hydro Assets)
Purchase) DOCKET NO. D2013.12.85

**DATA REQUESTS PSC-036 THROUGH PSC-058 OF THE
MONTANA PUBLIC SERVICE COMMISSION
TO NORTHWESTERN ENERGY**

PSC- 036

Regarding: PPLM data room, p. WTR-7
Witness: Rhoads

- a. Provide the data in the PPLM data room.
- b. Provide an index of the materials and information in the data room, with each file or item numbered using PPLM's numbering system and given a brief description. If any data room materials, information or files have already been provided to the Commission, please indicate where and when on the index.

PSC-037

Regarding: Assessments of litigation and environmental issues and legal review of
MOUs
Witness: Rhoads

Exhibits_(WTR-2.1), (WTR-2.2) and (WTR-2.3) include references to reports or legal assessments that NorthWestern contracted for and received pertaining to the hydro facilities' litigation and environmental issues. In addition, there is at least one reference (Exhibit_WTR-2.3, p. 9) to a legal review of various MOUs between PPLM and various agencies/entities. Provide copies of these legal assessments and/or reports and the MOU review(s).

PSC-038

Regarding: Compliance obligations, Exh.__(WTR-2.3), p. 9
Witness: Rhoads

Please provide the August 26, 2013 memorandum re: "Review of PPLM's List of License Articles with Compliance Requirements and Current Project Status."

PSC-039

Regarding: Avoided Market Purchases

Witness: Hines

- a. Provide the contracts for market purchases referred to on 12:1 of your testimony, and produce a table that identifies their terms, prices, and conditions.
- b. How does the price of the Hydros compare to the market purchases described in (a), in which NWE has contracted to engage?

PSC-040

Regarding: Carbon Regulation

Witness: Hines

NWE points to a Supreme Court decision “holding that EPA already has the authority under the Clean Air Act to regulate greenhouse gas emissions” (14:21-23). Has NWE analyzed more recent Supreme Court activity in respect to the legality of existing point-source regulation of greenhouse gas emissions and, if so, what are NWE’s conclusions regarding that activity?

PSC-041

Regarding: Carbon Price Escalation

Witness: Hines

Please provide a revised Graph 3 (p. 19) that does not include a forecast carbon price adder.

PSC-042

Regarding: Incline in Hydros Cost in 2033

Witness: Hines

What is the cause of the slight incline in Hydros cost in 2033 in Graph 3 (p. 19)?

PSC-043

Regarding: Review of Data

Witness: Hines

- a. Provide a catalogue of the “substantial amount of data including information on plant operations, maintenance, and engineering activities” (22:9-12), including in it which NWE employees or contractors were responsible for reviewing this data.
- b. Please identify the employee “who helped lead the FERC relicensing process for many of the generating facilities for MPC” (23:1-2).
- c. Please identify all consultants referred to at 23:7-9.

PSC-044

Regarding: Hydros Potential for Ancillary Services

Witness: Hines and/or Stimatz

- a. Are the Hydros capable of providing any ancillary services other than “spinning reserves”?
- b. What type of work is associated with “developing [NWE’s] resource optimization function” (JDH-27:18-19)

PSC-045

Regarding: PowerSimm Capabilities on Hydro and Carbon

Witness: Hines and/or Stimatz

- a. Describe how PowerSimm “models the characteristics of hydroelectric generation as well as weather” (JDH-30:23-31:2)
- b. Was risk of carbon pricing modeled stochastically in PowerSimm?
- c. Was carbon price modeled deterministically in the DCF and LT Rev Req modeling efforts?

PSC-046

Regarding: Growth Opportunities

Witness: Masud

What specifically is meant by “opportunities for future growth” in the phrase “substantial increase in business scale provides opportunities for future growth” on Exh. 1, p. 6.

PSC-047

Regarding: 2013 resource plan, alternatives to Hydros

Witness: Stimatz

Please provide PowerSimm model results for the following resource portfolios and carbon cost input assumptions:

- a. Portfolios:
 1. Current + 1 PW FT8 SCCT in 2020
 2. Current + 2 PW FT8 SCCT in 2020
 3. Current + 1 GE LMS 100 SCCT in 2020
 4. Current + 1 GE 7FA.04 ACC in 2020
 5. Current + 1 PW FT8 SCCT in 2020 + 100 MW wind in 2020
 6. Current + 2 PW FT8 SCCT in 2020 + 100 MW wind in 2020
 7. Current + 1 GE LMS 100 SCCT in 2020 + 100 MW wind in 2020
 8. Current + 1 GE 7FA.04 ACC in 2020 + 100 MW wind in 2020

b. Carbon cost input assumptions:

1. Model all portfolios (including those above) with an initial carbon cost distribution mean of \$15/ton and max of \$30/ton starting in 2021
2. Model all portfolios (including those above) with an initial carbon cost distribution mean of \$10/ton and max of \$20/ton starting in 2021
3. Model all portfolios (including those above) with an initial carbon cost distribution mean of \$15/ton and max of \$30/ton starting in 2026
4. Model all portfolios (including those above) with an initial carbon cost distribution mean of \$10/ton and max of \$20/ton starting in 2026
5. Model all portfolios (including those above) without incorporating carbon emission costs

Summarize the modeling results in tables similar to Figure 6-1, p. 6-5, in Volume 1 of the 2013 Electricity Supply Resource Procurement Plan (2013 Plan). Provide detailed results similar to those included in Volume 2, Chapter 4, of the 2013 Plan.

PSC-048

Regarding: Carbon pricing, 2013 plan capital costs

Witness: Stimatz

- a. Please provide the supporting calculations for the monthly on-peak and off-peak carbon adders in Exhibit_(JMS-2).
- b. Please provide the source for the resource cost information in Table No. 5-8, p. 5-32, in the 2013 Plan.
- c. The CCCT capital and fixed O&M costs in Table No. 5-8 appear to be about 10 percent and 28 percent higher, respectively, compared to the costs in the 2011 Plan, after adjusting for inflation. The 2013 Plan notes that the modeled CCCT includes an air cooled condenser. Please explain whether that cooling equipment accounts for all of the CCCT cost increase and, if not, what other factors contributed.

PSC-049

Regarding: PowerSimm

Witness: Stimatz

Please provide the following information regarding the PowerSimm model and Ascend Analytics:

- a. Who are the principals at Ascend Analytics and what are their backgrounds related to electric utility resource planning and cost modeling?
- b. When was the PowerSimm model developed and how long has it been in commercial use?

- c. What other electric utilities currently use the PowerSimm model and how do they use it?
- d. To the extent possible, please describe the primary functional differences between PowerSimm and models such as PROMOD, EGEAS, MIDAS, and Strategist?
- e. What are the primary limitations of the PowerSimm model with regard to estimating NorthWestern's long-term electricity supply portfolio costs?

PSC-050

Regarding: Transferred Employees

Witness: Kliewer

- a. Identify the positions of the 80 employees who are expected to transfer from PPLM to NWE.
- b. How many PPL employees who do work that is in some way related to the Hydros are not being "transferred"?
- c. Provide the IBEW-PPLM collective bargaining agreement referred to at 4:21-5:2.
- d. How many of the 80 transferees are covered by the collective bargaining agreement?

PSC-051

Regarding: Plant Investments by PPLM

Witness: Kliewer

Provide what PPLM furnished NWE, described as a record of "additional plant cost activity" at 6:11-13.

PSC-052

Regarding: Original Cost

Witness: Kliewer

Provide those "retained files from the 1999 sale of the generation facilities to PPLM" that justify NWE's calculation of original cost, referred to at 6:6-7.

PSC-053

Regarding: Intangible Plant Cost

Witness: Kliewer

Please describe how the value of intangible plant cost of \$63,853,971 was arrived at.

PSC-054

Regarding: Kerr Valuation

Witness: Kliewer

You refer to \$30 million as a “reference price somewhere in the middle of the range of possible outcomes of the [valuation] dispute” regarding Kerr at 8:9-11 of your testimony. Yet your calculation suggests the original cost at 2013 of Kerr is significantly higher, nearly \$120 million. Please explain this disparity and describe why the two numbers do not show more convergence.

PSC-055

Regarding: Depreciation

Witness: Kliewer

- a. Did NWE consider establishing different depreciation life-spans for different plants (e.g., the Rainbow Unit 9, recently constructed, may have a longer remaining life than a plant that has not experienced upgrades)?
- b. What did NWE do to evaluate comparable Hydro owners’ depreciation lifespans?
- c. Provide the MPC 1995 Depreciation Study referred to at 9:17-18.
- d. What would levelized cost of the Hydros be if the plant was depreciated (with the same residual terminal value) over 30 years (i.e., using a 3.33% accrual factor)?
- e. What would be the first-year bill impact in the scenario described in (d)?

PSC-056

Regarding: Production Tax Credit eligibility

Witness: Kliewer

- a. Why does Rainbow, given its recent upgrade, not qualify for PTC status?
- b. Describe the upgrades to Kerr, Cochrane, Ryan & Mystic Lake dams that cause these facilities to be eligible for PTC status.

PSC-057

Regarding: Capital Structure

Witness: Bird

On page 16 of your testimony, you state that NWE worried that it would be outbid by an equity or infrastructure fund that carries a higher amount of debt to equity in its capital structure, causing a lower required return. Why could NWE, in a transaction of this magnitude, not be expected to finance a greater share of the acquisition through debt, rather than equity, thereby reducing the overall cost to ratepayers?

PSC-058

Regarding: Future Cost of Service

Witness: DiFronzo

When you say that “all other changes in the cost of service for the Hydros would be included in future revenue requirement filings,” (16:1-2) do you mean General Rate Cases?